

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An information processing apparatus for determining analogousness between input words ~~an inputted word~~ and ~~a registered words~~ word which is a ~~word~~-registered in a dictionary, the information processing apparatus comprising:
a sensor section configured to sense an object related to said input words, and generating a sensed output;
a pre-processing section configured to receive said sensed output, and extract feature parameters of said object related to said input words from said sensed output;
a plurality of discriminators configured to receive said feature parameters of said object, and process said feature parameters to generate notation functions using a plurality of discrimination functions;
a selector configured to select a plurality of discriminated words representing said object;
a word train generating section configured to receive input means for inputting a word said plurality of discriminated words along with a concept said notation function which is a function for representing a matter that the word indicates functions, said word train generating section operating to generate a set of word trains by using all permutations of said plurality of discriminated words; and
word analogousness calculating means for calculating configured to calculate word analogousness which is the analogousness between each word train of said set of word trains the word and the a registered word train on the basis of using said the concept notation function functions.

2. (Currently Amended) The information processing apparatus as set forth in claim 1,
~~wherein the dictionary stores the registered word along with the concept notation function for the registered word~~ said notation functions include
a concept notation function.

3. (Currently Amended) The information processing apparatus as set forth in claim 2,
~~further comprising dictionary storage means in which the dictionary is stored~~ wherein said feature parameters include
parameters indicating color, shape, size, position, direction, and/or velocity of said object.

4. (Currently Amended) The information processing apparatus as set forth in claim 1,
~~wherein the concept notation function is the function which represents information obtained from the matter that the word indicates~~ said plurality of discrimination functions is generated in a learning process.

5. (Currently Amended) The information processing apparatus as set forth in claim 4,
~~wherein the concept notation function is the function which represents information obtained from output from sensor means for sensing stimulus given from the matter that the word indicates~~ said learning process uses said feature parameters obtained by observing said object.

6. (Currently Amended) The information processing apparatus as set forth in claim-1,
wherein ~~the sensor means is a device for converting light or sound into an electric signal, a touch~~
~~sensor, a temperature sensor or an acceleration sensor, and~~

~~wherein the concept notation function is the function which represents a parameter~~
~~obtained by observing the matter that the word indicates by the sensor means said word~~
~~analogousness calculating means also calculates word analogousness between a word in said~~
~~each word train and a word in said registered word train using a concept notation function.~~

7. (Currently Amended) The information processing apparatus as set forth in claim-1,
wherein the concept notation function ~~is-includes~~ a probability density function ~~or a discrete~~
~~probability distribution function.~~

8. (Currently Amended) The information processing apparatus as set forth in claim-1,
wherein the word analogousness calculating means calculates the word analogousness between
the word in said each word train and the word in said registered word train on the basis of
Bhattacharyya distance or Kullback divergence between the concept notation functions of the
word in said word train and the word in said registered word train.

9-11. (Canceled)

12. (Currently Amended) An information processing apparatus ~~adapted to prepare for~~
~~generating a dictionary used for calculating analogousness with respect to inputted word between~~

input words and registered words in said dictionary, the information processing apparatus comprising:

a sensor section configured to sense an object related to said input words, and generating a sensed output;

a pre-processing section configured to receive said sensed output, and extract feature parameters of said object related to said input words, said pre-processing section operating to process said feature parameters to generate concept notation functions; and

function generating means for generating concept notation function which is function for representing matter that registered word which is word registered into the dictionary indicates; and

correspondence providing means for allowing configured to generate correspondence between the registered word and the concept notation function with respect to that registered word to correspond to each other words and said concept notation functions.

13. (Currently Amended) The information processing apparatus as set forth in claim 12, wherein the concept notation function is the function for representing information obtained from the matter that the word indicates pre-processing section also generates text notation.

14. (Currently Amended) The information processing apparatus as set forth in claim 13, wherein the concept notation function is the function for representing information obtained from output from sensor means for sensing stimulus given from the matter that the word indicates pre-processing section also generates sound notation.

15-18. (Canceled)

19. (New) An information processing method for determining analoguousness between input words and registered words registered in a dictionary, the information processing method comprising:

sensing an object related to said input words, and generating a sensed output;

receiving said sensed output and extracting feature parameters of said object related to said input words from said sensed output;

processing said feature parameters to generate notation functions using a plurality of discrimination functions;

selecting a plurality of discriminated words representing said object;

generating a set of word trains by using all permutations of said plurality of discriminated words; and

calculating word analoguousness between each word train of said set of word trains and a registered word train using said notation functions.

20. (New) A recording medium on which a program for determining analoguousness between input words and registered words registered in a dictionary is recorded, the program comprising the executable instructions to:

sense an object related to said input words, and generating a sensed output;

receive said sensed output and extract feature parameters of said object related to said input words from said sensed output;

process said feature parameters to generate notation functions using a plurality of discrimination functions;

select a plurality of discriminated words representing said object;

generate a set of word trains by using all permutations of said plurality of discriminated words; and

calculate word analoguousness between each word train of said set of word trains and a registered word train using said notation functions.

21. (New) An information processing method for generating a dictionary used for calculating analoguousness between input words and registered words in said dictionary, the information processing method comprising:

sensing an object related to said input words, and generating a sensed output;

extracting feature parameters of said object related to said input words from said sensed output;

processing said feature parameters to generate concept notation functions; and

generating correspondence between the registered words and said concept notation functions.

22. (New) A recording medium on which a program for generating a dictionary used for calculating analoguousness between input words and registered words in said dictionary is recorded, the program comprising the executable instructions to:

sense an object related to said input words, and generate a sensed output;

extract feature parameters of said object related to said input words from said sensed output;

process said feature parameters to generate concept notation functions; and

generate correspondence between the registered words and said concept notation functions.